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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,681	10/19/2000	Thomas E. Saulpaugh	5181-66100	7211

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EXAMINER

LIN, WEN TAI

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 11/16/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/693,681

Applicant(s)

SAULPAUGH ET AL.

Examiner

Wen-Tai Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-89 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 13-16, 27-34, 40-43, 53-58, 62-64, 72-77 and 80-82 is/are rejected.
- 7) ☒ Claim(s) 8-12, 17-26, 35-39, 44-52, 59-61, 65-71, 78, 79 and 83-88 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/16/01, 8/13/01...
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. Claims 1-89 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 22-26, 49-52, 68-71 and 85-88 are objected to because the following terms lack antecedent basis:

- (i) Claims 22, 49, 68 and 85, "the first results object"; and
- (ii) Claims 22, 26, 49, 52, 68, 71, 85 and 88, "the first method call".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1-3, 6-7, 13-16, 30-32, 34, 40-43, 56-58, 62-64, 73-75, 77 and 80-82 are rejected under 35 U.S.C. 102(e) as being anticipated by Marcos et al. [U.S. Pat. No. 6347342].

5. As to claim 1, Marcos teaches the invention as claimed including: a method for accessing results data in a distributed computing environment [col.1, lines 7-9], comprising:

a client sending a first message in a data representation language to a service accessible through the distributed computing environment;

the service generating first results in response to the first message [e.g., 404-408, Fig.4A or 504-508, Fig.5A or 816, Fig.8A; col.2, lines 1-14; note that the code that the local stub used for packing the message is a data representation language such as C, C++, Object-C, etc.];

generating a first results gate [i.e., the client proxy] configured to provide an interface to the first results through messages in the data representation language [e.g., 402, 432, Fig.4A; note that the first results is embedded in the response message, which may use a data representation language such as C, C++, Object-C, etc. (see col.2, lines 1-14)]; and

the client accessing the first results through the first results gate [col.12, line 48 – col.13, line 40].

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6. As to claims 2-3 and 6, Marcos further teaches that the client comprises a client process [by default there is a client process to make the original request] and a client gate [312, Fig.3B; 802, Fig.8A; i.e., a client-side ORB is a client gate], wherein said sending a first message comprises:

the client gate receiving from the client process a request for the service to perform a function on behalf of the client process; and the client gate sending the first message to the service in response to said receiving a request [Figs. 8A-8B], wherein said generating a first results gate is performed by the client gate [816, Fig.8A; col.10, lines 23-36] and providing the first results gate to the client process as results of the function [e.g., 432, Fig. 4C or 534, Fig.5C or 634, Fig.6C; i.e., the first result gate translate the returned results (which is in the form of a response message) after the server has performed the requested function].

7. As to claim 7, Marcos further teaches that the first message includes information requesting the service to perform a function, and wherein said generating first results comprises: the service performing the function [424-426, Fig.4B]; and generating the first results as output of said performing the function [i.e., between 424 and 426 of Fig.4B the server perform the function as requested in the message and generate the first results].

8. As to claim 13, Marcos further teaches that the first message includes information representing a computer programming language method call, wherein the

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service comprises one or more computer programming language methods executable within the service, and wherein one of the methods executable within the service corresponds to the method call included in the first message [col.4, lines 14-45; col.2, lines 1-14].

9. As to claim 14, Marcos teaches taht the method further comprises:

a client process executing within the client generating the method call [col.4, lines 20-21];

wherein said sending a first message, said generating first results, and said generating a first results gate are performed without client process intervention [col.3, lines 60-67; note that the first result gate (i.e., the proxy object) is generated at the mediating component without the client process intervention].

10. As to claim 16, Marcos further teaches that the client comprises a client method gate [e.g., 316C, Fig.3C; col.2, lines 1-14], wherein said sending a first message comprises:

the client method gate receiving the computer programming language method call from a first process executing within the client; and

the client method gate generating the first message for the first process [col.4, lines 20-34; note that the client-side stub is the client method gate].

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11. As to claims 15, 30-32, 34, 40-43, 56-58, 62-64, 73-75, 77 and 80-82, since the features of these claims can also be found in claims 1-3, 7, 13-14 and 16, they are rejected for the same reasons set forth in the rejection of claims 1-3, 7, 13-14 and 16 above.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 4-5, 33 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marcos et al. (hereafter "Marcos") [U.S. Pat. No. 6347342], as applied to claims 1-3, 6-7, 13-16, 30-32, 34, 40-43, 56-58, 62-64, 73-75, 77 and 80-82 above, further in view of Kingdon [U.S. Pat. No. 5349642].

14. As to claims 4-5, Marcos does not specifically teach the method further uses the client gate or the first results gate to attach an authentication credential to the first

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message prior to said sending the first message, wherein the authentication credential identifies the client.

However, in the same field of endeavor, Kingdon teaches a method for providing message packet authentication to prevent the forging of message packets [Kingdon: Abstract: lines 1-3; col.3, line 66 – col.4, line 22].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have adopted Kingdon's message packet authentication process in Marcos's system because (1) Marcos's system also requires some sort of authentication in particular for requesting a subscribed service; (2) Kingdon's message packet authentication process could reduce the number of authentication related messages passing back and forth between the server and the client [see col.3, lines 31-36 for motivation]; and (3) in a distributed service environment Marcos's client does not know which server would provide the service until this issue got resolved at the client gate (i.e., the local ROB) or the first result gate (which is generated by the client gate), therefore it is proper to attach authentication credential after the client gate or the first result gate has chosen the service providing server.

15. As to claims 33 and 76, since the features of these claims can also be found in claims 1-2, 4, 30-31 and 73-74, they are rejected for the same reasons set forth in the rejection of claims 1-2, 4, 30-31 and 73-74 above.

16. Claims 27-28 and 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marcos et al.(hereafter "Marcos")[U.S. Pat. No. 6347342], as applied to claims 1-7, 13-16, 30-34, 40-43, 56-58, 62-64, 73-77 and 80-82 above.

17. As to claims 27-28, Marcos does not specifically teach that the client is executing within a virtual machine, wherein the virtual machine is executing within a client device in the distributed computing environment, and wherein the virtual machine is a Java Virtual Machine (JVM).

However, Marcos teaches that the client-server model is situated in a distributed computing environment where different object models and different programming languages may have been used in each platform. Furthermore, it is well known in the art that Java Virtual Machine is designed as a platform-independent execution machine (for interpreting Java compiled byte codes). As such, it would have been obvious to one of ordinary skill in the art that Marcos's client could be executing within a virtual machine, such as JVM, because JVM is widely available in the network environment.

18. As to claims 53-54, since the features of these claims can also be found in claims 1, 27-28 and 30, they are rejected for the same reasons set forth in the rejection of claims 1, 27-28 and 30 above.

19. Claims 29, 55, 72 and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marcos et al.(hereafter "Marcos")[U.S. Pat. No. 6347342], as applied

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to claims 1-7, 13-16, 27-28, 30-34, 40-43, 53-54, 56-58, 62-64, 73-77 and 80-82 above, further in view of Bergman et al.(hereafter "Bergman")[U.S. Pat. No. 6564263].

20. As to claim 29, Marcos does not specifically teach that the data representation language is eXtensible-Markup Language (XML).

However, Bergman teaches that using XML language is portable and essentially independent of the underlying machine, operating system/platform, and programming languages etc. and therefore is ideal for representing sophisticated, hierarchical structured data [col.14, lines 3-28].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used XML as a data representation language for Marcos's objects because XML is platform-independent, thereby reducing the need for translating the content of Marcos's resulting objects at the results gate.

21. As to claims 55, 72 and 89, since the features of these claims can also be found in claims 1, 29-30, 56 and 73, they are rejected for the same reasons set forth in the rejection of claims 1, 29-30, 56 and 73 above.

22. Claims 8-12, 17-26, 35-39, 44-52, 59-61, 65-71, 78-79 and 83-88 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

McQuistan et al. [U.S. Pat. No. 6321275];

Hamilton et al. [U.S. Pat. No. 5737607];

Hill et al. [U.S. Pat. No. 5511197];

Serlet et al. [U.S. Pat. No. 5481721];

Cheyet et al. [U.S. Pat. No. 6691151];

Glass [U.S. Pat. No. 6629128]; and

Campagnoni et al. [U.S. Pat. No. 6182154].

24. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 days from the mail date of this letter. Failure to respond within the period for response will result in ABANDONMENT of the application (see 35 U.S.C. 133, M.P.E.P. 710.02, 710.02(b)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone

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numbers for the organization where this application or proceeding is assigned are as follows:


(703)872-9306 for official communications; and

(703)746-5516 for status inquires draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

November 9, 2004


11/9/04